Department of Environmental Quality – Revised Notice of Bacteria TMDL Modification of James River and Tributaries – Lower Piedmont Region in Goochland, Fluvanna, Louisa, Powhatan, and Cumberland Counties, Virginia

COMMENT PERIOD CLOSES: December 7, 2011

The Department of Environmental Quality (DEQ) seeks public comment from interested persons on proposed minor modifications of the Total Maximum Daily Loads (TMDLs) developed for impaired segments: Byrd Creek, Beaverdam Creek Fine Creek and the James River (segments upper H33R-01 and lower H38R-04).

A total maximum daily load of *E. coli* was developed to address the bacterial impairments in the waterways and counties mentioned above. This TMDL was approved by the Environmental Protection Agency on 06/11/2008. The report is available at: http://www.deq.virginia.gov/tmdl/apptmdls/jamesrvr/jmsgrp2.pdf . The Virginia Department of Environmental Quality (DEQ) seeks written comments from interested persons on 38 minor modifications for this TMDL.

Six modifications are proposed for the Byrd Creek TMDL. Modifications one through four are to add Domestic Dischargers (VAG408275, VAG408281, VAG408344, VAG408404), which are single family home facilities with a design flow each of 0.001 million gallons per day (MGD). Facility VAG408275 discharges to Byrd Creek Un-named Tributary (UT), both facilities VAG408281 and VAG408344 discharge to Phils Creek UT, and facility VAG408404 discharges to Venable Creek UT. All four tributaries lie within the Byrd Creek drainage. Based on the design flow at the standard, these permits each should have a waste load allocation (WLA) of 1.74E+09 colony forming units per year (cfu/yr) for *E. coli* in the Byrd Creek TMDL. DEQ proposes to subtract the combined load of these permits from the "Future Growth" load. Modifications five and six are to change permit numbers for Domestic Dischargers VAG406343 and VAG406346, which both discharge to Venable Creek UT in the Byrd Creek drainage. These two facilities' numbers will now be identified in the report as VAG406521 and VAG406520, respectively. The final revised "Future Growth" load as a result of modifications one through four will equal 8.87E+10 (cfu/yr) *E. coli*. The proposed changes for the Byrd Creek TMDL are equal to <1%.

Three modifications are proposed for the Beaverdam Creek TMDL. First, DEQ proposes to remove facility Huguenot Academy (VA0063037), which should not have been given a waste load allocation (WLA) in the Beaverdam Creek TMDL because it discharges to the Fine Creek drainage. The WLA of 6.96E+09 (cfu/yr) *E. coli* based on a maximum discharge of 0.004 MGD will be added to the "Future Growth" load for the Beaverdam Creek TMDL. Second, DEQ proposes to remove facility James River Correctional Center (VA0020681), which no longer discharges to Beaverdam Creek. The WLA of 3.76E+11 (cfu/yr) *E. coli* based on a maximum discharge of 0.216 MGD will be added to the "Future Growth" load for Beaverdam Creek. Third, DEQ proposes to add a new WLA, Oilville Waste Water Treatment Plant (WWTP) (VA0092428),

which is a municipal facility with a maximum discharge of 0.3 MGD, by subtracting from the "Future Growth" load of Beaverdam Creek. The WLA to be assigned to this facility based on design flow at the standard is equal to 5.23E+11 (cfu/yr) *E. coli*. The revised "Future Growth" load in Beaverdam Creek as a result of these three modifications will be 2.57E+12 (cfu/yr). The proposed changes for the Beaverdam Creek TMDL are equal to < 1%.

One modification is proposed for the Fine Creek TMDL, which is to add a WLA for discharger Huguenot Academy (VA0063037), originally allocated to Beaverdam Creek by mistake. A WLA of 6.96E+09 (cfu/yr) *E. coli* will be assigned to the facility from the "Future Growth" load of Fine Creek. The revised "Future Growth" load in Fine Creek as a result of this modification will be 2.96E+10 (cfu/yr). The proposed changes for the Fine Creek TMDL are equal to < 1%.

Thirteen modifications are proposed for the upper James River (H33R-01) segment. The previous total WLA for the James River upper segment, 3.54E+11 (cfu/yr) *E. coli,* was incorrect. DEQ proposes to change this number to 3.50E+11 (cfu/yr) in the TMDL document, which is the correct total WLA for the James River upper segment. The correction of the James River upper segment total WLA affects no other allocations in the TMDL and is equal to <1%. The second and third modifications are to remove the WLAs for Domestic Dischargers VAG404239 and VAG404240, are domestic facilities which were never constructed and whose permits have been allowed to expire. DEQ proposes to add the combined load of these permits, which were each given a WLA of 1.74E+09 (cfu/yr) *E. coli* in the upper James River (H33R-01) segment TMDL, to the "Future Growth" load. Modifications four through twelve for the upper James River (H33R-01) segment include the addition of nine Domestic Dischargers (VAG404226, VAG404262, VAG404276, VAG404277, VAG406347, VAG408275, VAG408281, VAG408344, and VAG408404) with a maximum discharge of 0.001 MGD each. VAG404226 discharges to Maple Swamp Creek UT in the upper James River segment drainage, both VAG404262 and VAG404276 discharge to Stegers Creek UT in the upper James River segment drainage, VAG404277 discharges to Horsepen Branch UT in the upper James River segment drainage, VAG406347 discharges to the Venable Creek UT in the Byrd Creek drainage, VAG408275 discharges to Byrd Creek UT in the Byrd Creek drainage, both VAG408281 and VAG408344 discharge to Phils Creek UT in the Byrd Creek drainage, and VAG408404 discharges to Venable Creek UT in the Byrd Creek drainage. Based on the design flow at the standard, these permits each should have a WLA of 1.74E+09 (cfu/yr) for *E. coli* in the upper James River (H33R-01) segment TMDL. DEQ proposes a WLA of 1.74E+09 (cfu/yr) be assigned to each discharger, subtracted from the "Future Growth" for the James River upper segment. Modifications thirteen and fourteen are to change permit numbers for Domestic Dischargers VAG406343 and VAG406346, which both discharge to Venable Creek UT in the Byrd Creek drainage and received a WLA in the James River "upper" segment. These two facilities numbers will now be identified in the report as VAG406521 and VAG406520, respectively. The revised "Future Growth" as a

result of modifications two through twelve will be 2.70E+11 (cfu/yr) *E. coli*. The proposed changes for the upper James River (H33R-01) TMDL are equal to <1%.

Fifteen modifications are proposed for the lower James River (H38R-04) TMDL. Modifications one through three are to correct the original values of Future Growth, total WLA, and LA, which were 6.54E+12, 7.91E+12, and 3.91E+15 (cfu/yr) *E.coli*, respectively. Future Growth values are calculated as 5 times the WLA of Individual VPDES dischargers. However, 6.54E+12 (cfu/yr) is not the correct original future growth value; it is 6.82E+12 (cfu/yr) *E. coli*. The total WLA is the addition of each individual WLAs plus Future Growth. Because Future Growth was calculated incorrectly, 7.91E+12 (cfu/yr) is not the correct total WLA value, it is 8.20E+12 (cfu/yr) *E. coli*. The LA is calculated by subtracting the total WLA from the TMDL. Because the total WLA was calculated based on an incorrect value of Future Growth, 3.91E+15 (cfu/yr) is not the correct LA value, it is 3.90E+15 (cfu/yr) *E.coli*. The original Future Growth correction will not be reflected in the revised TMDL document; however, it is used as the baseline for calculating the revised Future Growth as a result of other modifications listed below. DEQ proposes to correct the reported total WLA and LA values to 8.20E+12 and 3.90E+15 (cfy/yr) *E.coli*, respectively, in the modified TMDL document. The fourth and fifth modifications are to remove the WLAs for Domestic Dischargers VAG404239 and VAG404240, which are domestic facilities never constructed and whose permits have been allowed to expire. DEQ proposes to add the combined load of these permits, which were each given a WLA of 1.74E+09 (cfu/yr) *E. coli* in the upper James River (H33R-01) segment TMDL, to the "Future Growth" load. Modifications six through twelve for the lower James River (H38R-04) segment include the addition of seven Domestic Dischargers (VAG404262, VAG404276, VAG404277, VAG408275, VAG408281, VAG408344, and VAG408404) with a maximum discharge of 0.001 MGD each. Based on the design flow at the standard, these permits each should have a WLA of 1.74E+09 (cfu/yr) for *E. coli* in the TMDL. DEQ proposes a WLA of 1.74E+09 (cfu/yr) be assigned to each discharger, subtracted from the "Future Growth" load for the James River lower segment. For modification thirteen, DEQ proposes the removal of the WLA for facility DOC Powhatan Correctional Center (VA020699), whose outfall discharges below the James River "lower" impaired segment. The WLA of 8.09E+11 (cfu/yr) *E. coli* based on a maximum discharge of 0.465 MGD will be added to the "Future Growth" load for James River "lower" segment. Modifications fourteen and fifteen are to change permit numbers for Domestic Dischargers VAG406343 and VAG406346, which both discharge to Venable Creek UT in the Byrd Creek drainage and received a WLA in the James River "lower" segment. These two facilities' numbers will now be identified in the report as VAG406521 and VAG406520, respectively. The revised "Future Growth" as a result of modifications one and four through thirteen will be 7.62E+12 (cfu/yr) *E. coli* for the lower James River segment. The proposed changes for the lower James River (H38R-04) TMDL are equal to <1%.

The proposed WLA changes above will neither cause nor contribute to the non-attainment of the James River basin. The public comment period for these modifications will end on December 7, 2011. Please send comments to Margaret Smigo, Department of Environmental Quality, Piedmont Regional Office, 4969-A Cox Road, Glen Allen, Virginia 23060, by email at Margaret.Smigo@deq.virginia.gov, or by fax (Attn. Margaret Smigo) at (804)527-5106. Following the comment period, a modification letter and any comments received will be sent to EPA for approval final approval.